

CLAIMS

1. Use of a composition capable of inhibiting glucocorticoid-induced chronic stress in a dermal cell or a cell involved in skin inflammatory responses in the manufacture of a composition for use in reducing the effects of psychologically-mediated stress on the skin of a human or animal.
2. Use according to claim 1 wherein the composition is administered orally.
- 10 3. Use according to claim 1 wherein the composition is administered topically.
- 15 4. Use according to any one of claims 1 to 3 wherein the composition comprises a first substance which is capable of inhibiting glucocorticoid-induced chronic stress in a cell involved in skin inflammatory responses and a second substance which is capable of inhibiting glucocorticoid-induced chronic stress in a dermal cell, provided that said first substance and second substance are different.
- 20 5. Use according to any one of claims 1 to 4 wherein the composition comprises a first substance selected from the group consisting of ginseng Rb1, ginseng Rc, curcumin, 22-OH-cholesterol, ciglitazone, mevinolin, commipheric acid, okadaic acid, liquorice extract and mixtures thereof; and a second substance selected from the group consisting of wolfberry extract, shiitake extract, activin, ginseng Rb1, ginseng Rc, curcumin, ciglitazone, commipheric acid, boswellia extract and mixtures thereof, provided that said first substance and second substance are different.
- 25 6. A method of reducing the effects of psychologically-mediated stress on the skin of a human or animal which method comprises administering to the individual a composition capable of inhibiting glucocorticoid-induced chronic stress in a dermal cell or a cell involved in skin inflammatory responses.

7. A method according to claim 6 wherein the composition is administered orally.

5 8. A method according to claim 6 wherein the composition is administered topically.

9. A method according to any one of claims 6 to 8 wherein the composition comprises a first substance which is capable of inhibiting glucocorticoid-induced
10 chronic stress in a cell involved in skin inflammatory responses and a second substance which is capable of inhibiting glucocorticoid-induced chronic stress in a dermal cell, provided that said first substance and second substance are different.

15 10. A method according to any one of claims 6 to 8 wherein the composition comprises a first substance selected from the group consisting of ginseng Rb1, ginseng Rc, curcumin, 22-OH-cholesterol, ciglitazone, mevinolin, commipheric acid, okadaic acid, liquorice extract and mixtures thereof; and a second substance selected from the group consisting of wolfberry extract, shiitake extract, activin, ginseng Rb1, ginseng Rc, curcumin, ciglitazone, commipheric acid, boswellia extract and mixtures thereof, provided that said first substance and second substance are different

25 11. A composition comprising a first substance selected from the group consisting of ginseng Rb1, ginseng Rc, curcumin, 22-OH-cholesterol, ciglitazone, mevinolin, commipheric acid, okadaic acid, liquorice extract and mixtures thereof; and a second substance selected from the group consisting of wolfberry extract, shiitake extract, activin, ginseng Rb1, ginseng Rc, curcumin, ciglitazone, commipheric acid, boswellia extract and mixtures thereof, provided that said first
30 substance and second substance are different.

12. A nutritional supplement comprising a first substance selected from the group consisting of ginseng Rb1, ginseng Rc, curcumin, 22-OH-cholesterol, ciglitazone, mevinolin, commipheric acid, okadaic acid, liquorice extract and mixtures thereof; and a second substance selected from the group consisting of
5 wolfberry extract, shiitake extract, activin, ginseng Rb1, ginseng Rc, curcumin, ciglitazone, commipheric acid, boswellia extract and mixtures thereof, provided that said first substance and second substance are different.

13. A cosmetic composition comprising, or supplemented with, a first substance selected from the group consisting of ginseng Rb1, ginseng Rc, curcumin, 22-OH-cholesterol, ciglitazone, mevinolin, commipheric acid, okadaic acid, liquorice extract and mixtures thereof; and a second substance selected from the group consisting of wolfberry extract, shiitake extract, activin, ginseng Rb1, ginseng Rc, curcumin, ciglitazone, commipheric acid, boswellia extract and mixtures thereof, provided that said first substance and second substance are
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14. A method for identifying a compound capable of reducing the effects of psychologically-mediated stress on the skin of a human or animal, which method comprises:
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- (i) contacting a dermal cell or a cell involved in skin inflammatory responses with a candidate compound in the presence of a glucocorticoid receptor agonist under conditions and for a period of time that would, in the absence of the candidate compound, lead to the cell being chronically stressed;
- 25 (ii) subjecting the cell to acute stress;
- (iii) analysing one or more cellular markers selected from a marker of inflammatory cell recruitment, where the cell is a cell involved in skin inflammatory responses, a marker of matrix degradation, where the cell is a dermal cell and/or a marker of matrix synthesis in the cell, where the cell is a
30 dermal cell; and
- (iv) determining whether the candidate compound affects the status of the one or more cellular markers.

15. A method according to claim 14 wherein step (iv) comprises comparing the status of said markers in the presence of the candidate compound with the status of said markers in the absence of the candidate compound.

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16. A method according to claim 14 or claim 15 wherein the marker of inflammatory cell recruitment is the level of expression of ICAM-1.

17. A method according to any one of claims 14 to 16 wherein the marker of matrix degradation is the level of expression of MMP-1 and/or MMP-9.

10 18. A method according to any one of claims 14 to 17 wherein the marker of matrix synthesis is the level of expression of procollagen-1.

15 19. A method according to any one of claims 14 to 18 wherein the acute stress is oxidative stress.

20 20. A method according to any one of claims 14 to 19 wherein the period of time in step (i) is at least 4 days.

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21. A method of producing a composition for reducing the effects of psychologically-mediated stress on the skin of a human or animal which method comprises

- (i) contacting a dermal cell or a cell involved in skin inflammatory responses with a candidate compound in the presence of a glucocorticoid receptor agonist under conditions and for a period of time that would, in the absence of the candidate compound, lead to the cell being chronically stressed;
- (ii) subjecting the cell to acute stress;
- (iii) analysing one or more cellular markers selected from a marker of inflammatory cell recruitment, where the cell is a cell involved in skin inflammatory responses; a marker of matrix degradation, where the cell is a

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dermal cell; and/or a marker of matrix synthesis in the cell, where the cell is a dermal cell;

(iv) determining whether the candidate compound affects the status of the one or more cellular markers;

5 (v) selecting a candidate compound identified in (iv) as affecting the status of the one or more cellular markers; and

(vi) admixing said compound with a cosmetically or pharmaceutically acceptable carrier or diluent.